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# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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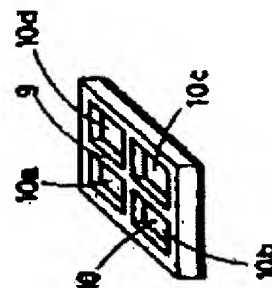
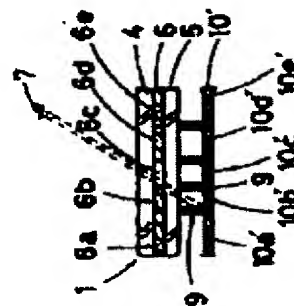
APPLICATION DATE : 01-03-83  
APPLICATION NUMBER : 58033988

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : HAMANAKA MITSUYOSHI;

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TITLE : LIQUID CRYSTAL DISPLAY DEVICE



**ABSTRACT :** PURPOSE: To suppress the reduction of an opening ratio from the front and to remove color shifting and outline fading phenomena by arranging black light shielding walls along the border lines of respective color areas of a color filter so as to be projected from the surface of the color filter.

**CONSTITUTION:** The black light shielding walls 9 with fixed width and height are arranged on the borders of respective areas 10a-10d of the color filter 10 having the color area 10a-10d such as red, blue, green and yellow. The color filter 10' (10) is arranged in accordance with respective liquid crystal areas 6a-6e of a liquid crystal panel 6. If an electric field is applied only to a liquid crystal area 6c to obtain a light emitting property and an observer 7 observes from the diagonal direction, the adjacent color area 10b' is not observed because of interruption by the black light shielding wall 9 and only the color area 10c' corresponding to the light crystal area 6c can be observed, so that color shifting and outline fading phenomena are removed. Since the light shielding walls 9 are projected to the front of the surface, the width of the walls 9 can be reduced and the opening ratio of the front is reduced.

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